
DETAILED ACTION

Claim Objections

1. Claim 1 is objected to because of the following informalities: In lines 2-3, the claim reads, "... at one trigger ...". For examination purposes the claim has been interpreted to mean at least one trigger. Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

3. Claims 10-12 are rejected under 35 U.S.C. 102(e) as being anticipated by Wiklof et al (US 6,056,199).

Wiklof et al teaches a bar code label (memory tag 42) which includes a bar code pattern (symbol 46) printed on the label, an indicator light (emitter 58) disposed on the bar code label, a power source 56 coupled to the indicator light, wherein the power source is coupled to the indicator light, a light sensor (optical detector 54) coupled to the indicator light, wherein the indicator light is illuminated when the bar code label is scanned by a light source having a predetermined frequency (see figures 2-5 and column 3 line 50 - column 6 line 45).

4. Claims 13, 14, 16, 18, 21-23, and 27-30 are rejected under 35 U.S.C. 102(e) as being anticipated by Miura (US 6,036,348).

Re claims 13, 14, 16, and 18: Miura teaches a carrier unit (parcel 2), a RF transponder device (electronic tag 3) disposed on the carrier unit, an optical bar code 5 disposed on the carrier unit, the transponder device including a data sequence regarding goods stored by the carrier unit, a low-powered radio disposed on the carrier unit, and the data sequence including the source of the carrier unit (the address, name, and telephone number of the consignor), and the carrier unit being a shipping container (see figures 1, 3, column 1 lines 53-58, column 2 lines 6-52, column 3 line 28 - column 5 line 52, column 6 lines 9-33, column 7 lines 17-27, column 7 line 57 - column 8 line 24, and column 10 lines 4-10).

Re claims 21-23: Miura also teaches a dual mode reader device (terminal 1), a temporary carrier unit (parcel 2) for storing articles of commerce, an optical bar code 5 disposed on the temporary carrier unit, a radio frequency transponder device (loop antenna 19 and transmitter 35) disposed on the temporary carrier unit, a plurality of goods stored by the temporary carrier unit, the reader device reads the optical bar code and communicates with the RF transponder device, and the reader device including an optical scanner portion (bar code/mark pen 6), a RF transceiver portion (antenna 11 and transmitter 32), and an indicator light (light/signal coupler parts 14 and 15) disposed on the carrier unit in close proximity to the optical bar code (see figures 1-3, column 1 lines 53-58, column 2 lines 6-52, column 3 line

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28 - column 5 line 52, column 6 lines 9-33, column 7 lines 17-27, column 7 line 57 - column 8 line 24, and column 10 lines 4-10).

Re claims 27-30: Miura also teaches a method of communicating between a reader device and a carrier unit, including the steps of: optically scanning the optical bar code using the reader device, establishing RF communication between the reader device and the RF transponder device, delivering status information from the carrier unit to the reader device, the status information being status information for the plurality of goods (the size and weight of the parcel 2 or the content), transmitting status information from the reader unit to the carrier unit, and the status information including status information for the carrier unit (the address, name, and telephone number of the consignee) (see figures 1-6, column 1 lines 53-58, column 2 lines 6-52, column 3 line 28 - column 5 line 52, column 6 lines 9-33, column 7 lines 17-27, column 7 line 57 - column 8 line 24, and column 10 lines 4-10).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-6, 8, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tausch et al (US 5,811,784) in view of Blanford (US 4,679,154).

Re claims 1, 3-5, and 9: Tausch et al teaches a dual function reader device 10, comprising: a housing 12 including a handle disposed at one end of the housing and including a trigger 16 disposed along the handle, a RF antenna 46 disposed along the housing, an optical bar code scanner circuit disposed within the housing, an RF transceiver disposed within the housing, a processing circuit coupled to the antenna, the RF transceiver and to the scanner circuit, and the processing circuit forming an RF transmission signal, a battery pack (power source 48) disposed within the housing, the battery pack being electrically coupled to the processing circuit and to the antenna and the transceiver, a data entry device (key switches 22) disposed on the device housing, and the data entry device being coupled to the processing circuit (see figures 1-3, 8, column 5 lines 36-48, column 6 lines 9-28, column 11 lines 43-54, and column 13 lines 50-55).

Tausch et al fails to specifically teach the reader generating a data read signal after a successful optical read operation is completed, the processing circuit forming a RF transmission signal after receiving the data read signal, the transceiver being enabled to transmit the transmission signal after the data read signal is received by the RF transceiver, and the data read signal being generated by the scanner circuit after the scanner circuit received uncorrupted data from an optical bar code.

Blanford teaches a reader device 20 which generates a data read signal (good read signal) after a successful optical read operation is completed (the bar code data is uncorrupted and decodable) and forming a transmission signal and transmitting the transmission signal (sending the data read to processor 88 over line 87) after the data read signal is received (see figure 4, column 2 lines 31-36, and column 5 lines 45-64).

In view of Blanford's teachings, it would have been obvious to one of ordinary skill in the art at the time of the invention to integrate, with the system as taught by Tausch et al, the reader generating a data read signal after a successful optical read operation is completed, the processing circuit forming a RF transmission signal after receiving the data read signal, the transceiver being enabled to transmit the transmission signal after the data read signal is received by the RF transceiver, and the data read signal being generated by the scanner circuit after the scanner circuit received uncorrupted data from an optical bar code, in order to ensure that only valid data is transmitted.

Re claims 2, 6, and 8: Tausch et al as modified by Blanford fails to specifically teach a tether attached to the device housing, an automatic backup circuit which automatically enables the transceiver if no data read signal is generated a predetermined period of time after the scanner circuit attempts to read an optical bar code, and the automatic backup circuit being disabled if the device is not coupled to an external power source.

However, at the time of the invention it was well known to those of ordinary skill in the art to attach a tether to a device housing (for example: tether a bar code reader to a

transaction terminal when full portability is not required, thereby allowing the transaction terminal to supply power to the bar code reader), transmit a message (such as a bad read or no read signal) if no data read signal is generated a predetermined period of time after the scanner circuit attempts to read an optical bar code, and disabling certain functions of a bar code reader if the reader is not coupled to an external power source.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to integrate, with the system as taught by Tausch et al as modified by Blanford, a tether attached to the device housing, an automatic backup circuit which automatically enables the transceiver if no data read signal is generated a predetermined period of time after the scanner circuit attempts to read an optical bar code, and the automatic backup circuit being disabled if the device is not coupled to an external power source, in order to conserve the limited battery supply of the portable reading device, and to alert the user and/or host that an optical bar code cannot be read.

7. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tausch et al as modified by Blanford as applied to claim 1 above, and further in view of Kahn et al (US 5,801,371).

Tausch et al as modified by Blanford fails to teach the processing circuit including a manual selection function which causes either the transceiver or the scanner to be enabled.

Kahn et al teaches a reading device 10 which includes a processing circuit, a scanner circuit and a transceiver. The processing circuit also includes a manual selection function

(operable via switches 70 and 71) which causes either the transceiver or the scanner circuit to be enabled (see figures 1, 3, and column 7 line 19 - column 8 line 5).

In view of Kahn et al's teachings, it would have been obvious to one of ordinary skill in the art at the time of the invention to integrate, with the system as taught by Tausch et al as modified by Blanford, the processing circuit including a manual selection function which causes either the transceiver or the scanner to be enabled, in order to provide a system that can be operated in various sequences thereby allowing the user greater flexibility in determining when to perform reading operations and when to perform data transmission.

8. Claims 17, 19, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miura in view of Baldwin et al (US 4,937,581).

The teachings of Miura have been discussed above. Miura fails to teach the carrier unit being a railroad card, a shipping pallet or a truck trailer.

Baldwin et al teaches an electronic identification system for use with a carrier unit, wherein the carrier unit comprises a railroad card, a shipping container, a shipping pallet, and trucks (see column 1 lines 22-38).

In view of Baldwin et al's teachings, it would have been obvious to one of ordinary skill in the art at the time of the invention to integrate, with the system as taught by Miura, the carrier unit being a railroad card, a shipping pallet or a truck trailer, in order to provide a more versatile system that would appeal to many different users (railroad companies, trucking companies, etc.).

9. Claims 15, 24-26, 31, and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miura in view of Welles, II et al (US 5,686,888).

The teachings of Miura have been discussed above.

Re claim 15, 31, and 32: Miura fails to teach the radio periodically waking up and transmitting a status message, transmitting a location detection signal for geographically locating the carrier unit, and communicating with the RF transponder via a base station.

Welles, II et al teaches a radio that periodically wakes up and transmits a status message (the status message being the status of cargo being shipped), transmitting a location detection signal for geographically locating a carrier unit, and communicating with the RF transponder via a base station (central station 18) (see figures 1, 2, 5, column 1 lines 7-12, 23-26, column 2 lines 8-15, 50-55, column 2 line 59 - column 3 line 6, column 3 lines 35-58, column 4 lines 5-7, column 5 lines 33-49, column 5 line 57 - column 6 line 3, and column 6 lines 16-43).

In view of Welles, II et al's teachings, it would have been obvious to one of ordinary skill in the art at the time of the invention to integrate, with the system as taught by Miura, radio periodically waking up and transmitting a status message, transmitting a location detection signal for geographically locating the carrier unit, and communicating with the RF transponder via a base station, in order to conserve power used by the radio since the radio would not be active all the time, and to provide the location of goods during transit, which allows for inventory control, scheduling and monitoring.

Re claims 25 and 26: Miura fails to teach a pressure sensor for sensing pressure exerted on the carrier unit, and a sensor for providing status data to the RF transponder device.

Welles, II et al also teaches a pressure sensor 68B for sensing pressure exerted on a carrier unit and for providing status data to an RF transponder device (see figure 2, column 1 lines 7-12, column 2 lines 50-55, column 2 line 59 - column 3 line 6, column 5 lines 2-7, 33-49, column 5 line 57 - column 6 line 3, and column 6 lines 16-43).

In view of Welles, II et al's teachings, it would have been obvious to one of ordinary skill in the art at the time of the invention to integrate, with the system as taught by Miura, a pressure sensor for sensing pressure exerted on the carrier unit, and a sensor for providing status data to the RF transponder device, in order to provide ability to monitor the condition and integrity of the goods being shipped.

Re claim 24: Welles, II et al also teaches that the monitored data for all classes of goods are not the same and that several types of standard sensors may be employed (essentially, the type of sensors being used depend upon the type of goods being shipped) (see column 5 line 57 - column 6 line 3 and column 6 lines 16-42).

Miura as modified by Welles, II et al fails to specifically teach a biological sensor for sensing biological activity of the goods.

However, biological sensors for sensing biological activity were well known to those of ordinary skill in the art at the time of the invention.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to integrate, with the system as taught by Miura as modified by Welles, II et al, a biological sensor for sensing biological activity of the goods, in order to provide the ability to ship and monitor goods (for example: animals) having biological activity, which would increase the versatility and appeal of the system.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Markman (US 5,962,834) and Kaltner (US 5,059,951) both teach labels which include a bar code pattern and a transponder. Cato (US 5,874,724) teaches a light selectable RFID tag. Schultz et al (US 5,280,159) teaches a reader device that includes a bar code reader and an RF tag reader.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Jared Fureman** whose telephone number is (703) 305-0424. The examiner can normally be reached between the hours of 7:00AM to 4:30PM Monday thru Thursday and every other Friday (second Friday of the bi-week).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Donald T. Hajec, can be reached on (703) 308-4075. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722, (703) 308-7724, or (703) 308-7382.

Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [jared.fureman@uspto.gov].

All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.

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